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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,660	12/06/2001	Richard Murray	018501-000711US	5788

20350 7590 10/20/2003

TOWNSEND AND TOWNSEND AND CREW, LLP
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EXAMINER

NICKOL, GARY B

ART UNIT	PAPER NUMBER
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1642

DATE MAILED: 10/20/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,660

Applicant(s)

MURRAY ET AL.

Examiner

Gary B. Nickol Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The response filed on July 25, 2003 (Paper No. 7) to the restriction requirement of March 25, 2003 has been received. Applicant has elected Group I, drawn to detecting SEQ ID NO:41, which encompasses claims 1-11. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP 818.03(a)).

Claims 12-29 were cancelled.

Thus, claims 1-11 are pending and are currently under examination.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The signature of Richard Murray is not dated.

Priority

A review of the parent applications did not lend support for disclosure of SEQ ID NO:41. If applicant disagrees with any rejection of claims 1-11 set forth in this office action based on examiner's establishment of a priority date of **February 14, 2001** for the instant claims

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in application serial number 10/021,660 applicant is invited to submit evidence pointing to the serial number, page and line where support can be found establishing an earlier priority date.

Specification

The specification is objected to because it contains multiple embedded hyperlinks and/or other forms of browser-executable codes (i.e., see pages 6, 21, 30). See MPEP §608.01. Examples of a hyperlink or a browser-executable code are a URL placed between these symbols “< >” and http:// followed by a URL address. Merely deleting said symbols and “ **http://** ” would obviate this objection. Patent publications of website addresses are permitted, but direct linkage to said sites must be disabled since USPTO policy does not permit the USPTO to link to any commercial sites since the USPTO exercises no control over the organization, views or accuracy of the information contained on these outside sites.

Claim Objections

Claim 1 is objected to for reciting “A method of detecting angiogenesis-associated transcript” which is grammatically unclear. This objection can be obviated by amending the claim to read: “A method of detecting an angiogenesis-associated transcript”.

Claim 1 is further unclear for reciting “that selectively hybridized” because it appears that the claim is written in the past tense. This objection can be obviated by amending the claim to recite “that selectively hybridizes”

Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Both claims are limited to the same

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sequence as shown in Table 1. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to a method comprising contacting a polynucleotide that selectively hybridizes to a sequence at least 80% identical to SEQ ID NO:41. The claims do not require that the sequence possess any particular biological activity, nor any particular conserved structure, or other disclosed distinguishing feature. Thus, the claims are drawn to a genus of polynucleotides that is defined only by sequence identity.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making

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the claimed product, or any combination thereof. In this case, the only factor present in the claim is a partial structure in the form of a recitation of percent identity. Further, there is no identification of any particular portion of the structure that must be conserved. Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of *the invention*. The invention is, for purposes of the ‘written description’ inquiry, *whatever is now claimed*.” (See page 1117.) The specification does not “clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.” (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of the encompassed genus of polypeptides, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF’s were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

Therefore, only a method comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridizes to SEQ ID NO:41, but not the full breadth of the claim meets the written description provision of 35 U.S.C. §112, first paragraph. Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 U.S.C. §112 is severable from its enablement provision (see page 1115).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998).

Au-Young *et al.* teach and claim a plurality of polynucleotide probes that can be used as array elements in a microarray wherein *each* probe comprises at least a portion of a gene coding for a signaling pathway polypeptide (SPP) (column 4, lines 1-10). The patent further teaches that these portions can also mean the whole coding sequence of a gene (column 3, lines 41+). The patent further teaches that the microarray is particularly useful for diagnosing cancers (column 12, lines 4+). One of these polynucleotide probes is 100% identical to SEQ ID NO:41 (see

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attached sequence comparison) wherein said polynucleotide is inherently associated with angiogenesis.

The patent teaches that at least ONE of these probes is hybridized to a target polynucleotide forming at least ONE complex forming an expression profile wherein “a complex is detected by incorporating at least *one* labeling moiety in the complex” and wherein said profile provides a snapshot characteristic of a disease or a condition (column 11, lines 15-35). Hence, the teachings of the patent anticipate detecting a transcript in a cell of a patient comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridized to SEQ ID NO:41. And, since the patent teaches that the probe can be the full-length gene, the hybridization complex would include a sequence that is *at least 80%* identical to SEQ ID NO:41. The patent further teaches that the biological sample is a tissue sample (column 8, line 9); and comprises isolated nucleic acids that can be mRNA (column 8, lines 10, and 20+). The patent further teaches amplifying nucleic acids before the step of contacting the biological sample with the polynucleotide (column 8, lines 26-44). The patent further teaches that the polynucleotide is labeled (column 8, lines 65+) including labeling with a fluorescent label (column 9, line 8) and or immobilized on a solid support (column 7, line 19). The patent further teaches that the invention can be used to monitor the progress of disease or the efficacy of a treatment which reads on use of the claimed method when the patient is undergoing a therapeutic regimen to treat a disease. Since the diseases include many different types of cancer, and since angiogenesis is known to be associated with cancer, the limitation of claims 10 and 11 are also anticipated.

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Claims 1, and 3-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ekman *et al.* (US 2002/0173481, June 25, 1998).

Ekman *et al.* teach a method of diagnosing a disease associated with Bmx dysfunction comprising assaying the Bmx gene (100% identity to SEQ ID NO:41-see attached sequence comparison) using assays known in the art for detecting mutations or gene defects or abnormalities such as restriction digest, PCR assays, nucleic acid sequencing, Southern or Northern blotting, hybridization of labeled oligonucleotides to the gene or any suitable commercial kit (page 3, bottom of column 2 to top of column 3 and claim 22, page 14). Inherently, such assays would include biological samples comprising isolated nucleic acids wherein the nucleic acids are mRNA (Claims 2-3) since Northern blotting is a standard method for the detection and quantitation of mRNA levels. Further, such assays would include the step of amplifying nucleic acids before the step of contacting the biological sample (Claim 4) since PCR assays encompass the amplification of nucleic acids. Thus, clearly, the above teachings encompass detecting SEQ ID NO:41 from a patient by hybridization to a sequence which is at least 80% identical to SEQ ID NO:41.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaukonen *et al.* (British Jnl. Haematology, 1996, Vol. 94, pages 455-460) as further evidenced by Padro *et al.* (Blood, April 2000, Vol. 95(8), abstract)

Kaukonen *et al.* teach a method of detecting a transcript in a cell of a patient comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridizes

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to the BMX gene. As set forth above, the BMX gene is 100% identical to SEQ ID NO:41. Thus, absent evidence to the contrary, the BMX sequence assayed by Kaukonen *et al.* is 80% identical to SEQ ID NO:41 and would inherently have the feature of being associated with angiogenesis. Kaukonen *et al.* further teach that said biological sample is a tissue sample (i.e. bone marrow and peripheral blood samples- page 456) wherein the biological sample comprises isolated nucleic acids, and or labeled polynucleotides (page 457), mRNA (page 457), and wherein the assay includes amplifying nucleic acids before the step of contacting the biological sample with the polynucleotide- i.e. RT-PCR- page 458. Furthermore, Kaukonen *et al.* teaches that samples positive for BMX expression included patients with hematological malignancies such as AML. Inherently, such patients would be undergoing a therapeutic regimen to treat their disease. Furthermore, as evidenced by Padro *et al.*, AML is a disease associated with angiogenesis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaukonen *et al.* (British Jnl. Haematology, 1996, Vol. 94, pages 455-460) as further evidenced by Padro *et al.* (Blood, April 2000, Vol. 95(8), abstract) in further view of the general teachings as set forth by Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998).

1. The teachings of Kaukonen *et al.* (British Jnl. Haematology, 1996, Vol. 94, pages 455-460) as further evidenced by Padro *et al.* (Blood, April 2000, Vol. 95(8), abstract) are set forth above as applied to Claims 1-7 and 10.
2. Kaukonen *et al.* do not specifically teach wherein the polynucleotide is labeled by a fluorescent label (Claim 8); or, alternatively, wherein the polynucleotide is immobilized on a solid surface (Claim 9). Also, Kaukonen *et al.* does not specifically teach the method of Claim 1 wherein the patient is suspected of having cancer (Claim 11).
3. Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998) teach the various art-recognized methodologies of assaying polynucleotides including immobilization on a solid surface (column 7, lines 19+) and that target polynucleotides can also be labeled with one or more labeling moieties to allow for detection of hybridized probe/target polynucleotide complexes including the use of fluorescent markers (column 9, lines 1-10).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modulate the method of Kaukonen *et al.* so as to include different labeling moieties for the assayed polynucleotides such as fluorescent labels or to assay the

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polynucleotide when it is immobilized on a solid surface because Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998) teach methods of assaying target polynucleotides including immobilization on a solid surface (column 7, lines 19+) and that target polynucleotides can also be labeled with one or more labeling moieties to allow for detection of hybridized probe/target. One would have been motivated to do so because these methods are well-known in the art and would have provided one of ordinary skill in the art a reasonable expectation of success. Further, it would have been *prima facie* obvious to modulate the methods of Kaukonen *et al.* to include detecting the BMX (SEQ ID NO:41) transcript in a cell of a patient wherein the patient is suspected of having cancer because Kaukonen *et al.* successfully teach detection of BMX in all samples of patients with acute myeloid leukemia (10/10) and chronic myeloid leukemia (4/4) (abstract, and Table 1, page 458). Hence, one of ordinary skill in the art would be motivated to assay for the presence of BMX in a patient suspected of having a cancer like AML or CML to aid in the diagnosis of such cancers wherein there would exist a reasonable expectation of success of detecting BMX in said patients since Kaukonen *et al.* successfully teaches the expression of BMX in patients with said cancers.

Claims 1-9 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Ekman *et al.* (US 2002/0173481, June 25, 1998) and the general teachings as set forth by Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998).

1. Ekman *et al.* teach as set forth above as applied to claims 1, and 3-7.

2. Ekman *et al.* do not specifically teach wherein the biological sample is a tissue sample (Claim 2); wherein the polynucleotide is labeled by a fluorescent label (Claim 8); or, alternatively, wherein the polynucleotide is immobilized on a solid surface (Claim 9).
3. Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998) teach the various art-recognized methodologies of assaying polynucleotides including immobilization on a solid surface (column 7, lines 19+) and that target polynucleotides can also be labeled with one or more labeling moieties to allow for detection of hybridized probe/target polynucleotide complexes including the use of fluorescent markers (column 9, lines 1-10). The patent further suggests that the samples containing polynucleotides can be from any sample including those obtained from bodily fluids, cultured cells, biopsies, or other tissue preparations (column 8, lines 5+).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modulate the method of Ekman *et al.* so as to include different labeling moieties for the assayed polynucleotides such as fluorescent labels or to assay the polynucleotide when it is immobilized on a solid surface because Au-Young *et al.* (US Patent No. 6,500,938; January 30, 1998) teach methods of assaying target polynucleotides including immobilization on a solid surface (column 7, lines 19+) and that target polynucleotides can also be labeled with one or more labeling moieties to allow for detection of hybridized probe/target. It would have been further obvious to one of ordinary skill in the art to include biological samples derived from a tissue sample because tissue samples merely represent one of the many sources that comprise polynucleotides as taught by Au-Young *et al.* Further, one would have been motivated to include

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such limitations because all of these steps are well-known in the art and would have provided one of ordinary skill in the art a reasonable expectation of success.

No claim is allowed.

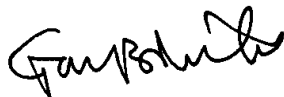
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 703-305-7143. The examiner can normally be reached on M-F, 8:30-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Gary B. Nickol, Ph.D.
Examiner
Art Unit 1642

GBN
October 17, 2003



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OM nucleic - nucleic search, using sw model

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Title: US-10-021-660-41
Perfect score: 2456
Sequence: 1 gcaagcacggaacagctga.....aatgtgaaaaaaacccg 2456

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Searched: 569978 seqs, 220691566 residues

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2456	100.0	2456	4	US-09-016-434-1476
2	2397.6	97.6	2500	4	US-08-426-509A-3
3	2397.6	97.6	2500	4	US-08-232-545-3
4	2397.6	97.6	2500	5	PCT-US95-05008-3
5	493	20.1	2505	1	US-08-391-615-1
6	439.4	17.9	2574	3	US-09-142-529-2
7	439.4	17.9	2574	4	US-10-045-428A-2
8	220.2	9.0	3623	1	US-08-306-691B-35
9	211.6	8.6	2647	4	US-09-220-132-77
10	211.6	8.6	2647	5	PCT-US93-06251-77
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12	207.6	8.5	1611	1	US-07-820-011A-3
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15	204	8.3	1602	5	PCT-US93-00445-1
16	176.4	7.2	1491	2	US-09-006-675-1
17	176.4	7.2	1491	3	US-09-228-603A-1
18	173.6	7.1	1548	4	US-09-099-053-1
19	171	7.0	1467	4	US-09-579-182-2
20	168.2	6.8	780	2	US-09-006-675-7
21	168.2	6.8	780	3	US-09-228-603A-7
22	168	6.8	2770	4	US-08-426-509A-5
23	168	6.8	2770	4	US-08-232-545-5
24	168	6.8	2770	5	PCT-US95-05008-5
25	168	6.8	7607	1	US-08-222-616-19
26	168	6.8	7607	4	US-08-446-648-19
27	168	6.8	7607	5	PCT-US95-04228-19

28	166.4	6.8	2827	4	US-08-492-723-1	Sequence 1, Appl
29	158	6.4	268	1	US-08-700-575-18	Sequence 18, Appl
30	153	6.2	4517	5	PCT-US93-06251-83	Sequence 83, Appl
31	145	5.9	238	1	US-08-700-575-7	Sequence 7, Appl
32	142.6	5.8	2674	4	US-09-817-180-1	Sequence 1, Appl
33	137.6	5.6	1804	1	US-08-306-691B-40	Sequence 40, Appl
34	137.6	5.6	1804	4	US-09-167-322-14	Sequence 14, Appl
35	137.6	5.6	1804	5	PCT-US93-06251-82	Sequence 82, Appl
36	136.2	5.5	1574	3	US-09-173-581-12	Sequence 12, Appl
37	136.2	5.5	1574	3	US-09-420-915-12	Sequence 12, Appl
38	134	5.5	159	1	US-08-456-647B-15	Sequence 15, Appl
39	134	5.5	159	2	US-08-237-401A-15	Sequence 15, Appl
40	120	4.9	2129	4	US-09-016-434-1452	Sequence 1452, Ap
41	118	4.8	3416	2	US-08-357-642A-2	Sequence 2, Appl
42	118	4.8	3416	2	US-08-460-626-2	Sequence 2, Appl
43	118	4.8	3416	4	US-09-016-434-1483	Sequence 1483, Ap
44	118	4.8	4089	4	US-09-300-958A-13	Sequence 13, Appl
45	107.2	4.4	1398	2	US-08-604-989A-9	Sequence 9, Appl

ALIGNMENTS

RESULT 1
US-09-016-434-1476
; Sequence 1476, Application US/09016434
; Patent No. 6500938
; GENERAL INFORMATION:
; APPLICANT: Janice Au-Young
; APPLICANT: Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
; TITLE OF INVENTION: PATHWAY GENE EXPRESSION
; NUMBER OF SEQUENCES: 1490
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
; CURRENT APPLICATION DATA: US/09/016,434
; APPLICATION NUMBER: US/09/016,434
; FILING DATE: HEREWITH
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Zeller, Karen J.
; REGISTRATION NUMBER: 37,071
; REFERENCE/DOCKET NUMBER: PA-0002 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 855-0555
; TELEFAX: (650) 845-4166
; INFORMATION FOR SEQ ID NO: 1476:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2456 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GENBANK
; CLONE: g951234
; US-09-016-434-1476

Query Match 100.0%; Score 2456; DB 4; Length 2456;
Best Local Similarity 100.0%; Pred. No. 0;

Matches 2456; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
QY	1	GCAACGCGACAAAGCTGAGACGATGATATATGGATACAAAATCTATTCTAGAAGAA	60
Db	1	GCAACGCGACAAAGCTGAGACGATGATATATGGATACAAAATCTATTCTAGAAGAA	60
QY	61	CTTCTTCTCAAAAGATCACAGCAAAAGAGAAATGTCCACCAAAATTAATACAAAGACGG	120
Db	61	CTTCTTCTCAAAAGATCACAGCAAAAGAGAAATGTCCACCAAAATTAATACAAAGACGG	120
QY	121	CTTTTGTGTTGACCAAAACAACTTCTCTACTATGAATATGACAAAATGAAAAGGGG	180
Db	121	CTTTTGTGTTGACCAAAACAACTTCTCTACTATGAATATGACAAAATGAAAAGGGG	180
QY	181	AGCAGAAAGAGTCCATTGAATTAAGAAATCAGATGTGGGAGAAAGTAAATCTCGAG	240
Db	181	AGCAGAAAGAGTCCATTGAATTAAGAAATCAGATGTGGGAGAAAGTAAATCTCGAG	240
QY	241	GAGCAGACGCTGTAGAGAGACAGTACCATTTCAGATTGCTATAAGATGGGCTTCTC	300
Db	241	GAGCAGACGCTGTAGAGAGACAGTACCATTTCAGATTGCTATAAGATGGGCTTCTC	300
QY	301	TATGTCTATGCATCAAAATGAAGAGAGCGGAAAGTCAAGTGGTGAAGCAATTACAAAGAG	360
Db	301	TATGTCTATGCATCAAAATGAAGAGAGCGGAAAGTCAAGTGGTGAAGCAATTACAAAGAG	360
QY	361	ATAAGGGGTAAACCCACCTGCTGGTCAAGTACCATTAGTAGTGGGTCTCGTGGACGGGAAG	420
Db	361	ATAAGGGGTAAACCCACCTGCTGGTCAAGTACCATTAGTAGTGGGTCTCGTGGACGGGAAG	420
QY	421	TTCTCTGTGTTGCCAGCAGAGCTGTAAAGCAGCCCGCAGGATGTACCTCTGGGAAGCATAT	480
Db	421	TTCTCTGTGTTGCCAGCAGAGCTGTAAAGCAGCCCGCAGGATGTACCTCTGGGAAGCATAT	480
QY	481	GCTAATCTGCATCTGAGTCAATGAAGAGAGAAACACAGAGTTCACCACTTCCAGACAGA	540
Db	481	GCTAATCTGCATCTGAGTCAATGAAGAGAGAAACACAGAGTTCACCACTTCCAGACAGA	540
QY	541	GTGCTGAAGATACCTCGGGCAGTTCCTGTTCTCAAAATGGATGACCACTTCTCAAGTACC	600
Db	541	GTGCTGAAGATACCTCGGGCAGTTCCTGTTCTCAAAATGGATGACCACTTCTCAAGTACC	600
QY	601	ACTTAGCCCAATATGACAAAGAACTATGGCTCCCGCCAGCCACCATCTTCA	660
Db	601	ACTTAGCCCAATATGACAAAGAACTATGGCTCCCGCCAGCCACCATCTTCA	660
QY	661	AGTACCAGCTTAGCGCAATATGACAGCAACTCAAGAAATCTATGGCTCCCGCCAGCCAAAC	720
Db	661	AGTACCAGCTTAGCGCAATATGACAGCAACTCAAGAAATCTATGGCTCCCGCCAGCCAAAC	720
Y	721	TTCACATGCAATATATTCCAAGGGAAGACTTCCCTGACTGGTGGCAAGTAAAGAAACTG	780
Db	721	TTCACATGCAATATATTCCAAGGGAAGACTTCCCTGACTGGTGGCAAGTAAAGAAACTG	780
QY	781	AAAGTAGCAGCAGCAGTGAAGTGTGCAAGCAGTAAACCAAAAGAAAGAAATGTGAAT	840
Db	781	AAAGTAGCAGCAGCAGTGAAGTGTGCAAGCAGTAAACCAAAAGAAAGAAATGTGAAT	840
QY	841	CACACCACTCAAAAGATTTTCATGGGAATTCCTGAGTCAAGTTCATCTGAAGAGAGGAA	900
Db	841	CACACCACTCAAAAGATTTTCATGGGAATTCCTGAGTCAAGTTCATCTGAAGAGAGGAA	900
QY	901	AACCTGGATGATTATGACTGGTGTGCTGTAACATCTCCAGATCACAATCTGAACAGTTA	960
Db	901	AACCTGGATGATTATGACTGGTGTGCTGTAACATCTCCAGATCACAATCTGAACAGTTA	960
QY	961	CTCAGCAAAAGGAAAGAGAGCAATTAAGTTAGAAATTCGAGCCAAAGTGGGAATG	1020
Db	961	CTCAGCAAAAGGAAAGAGAGCAATTAAGTTAGAAATTCGAGCCAAAGTGGGAATG	1020
QY	1021	TACACAGTGTCTTATTACTAGGCTGCAATGATATAAGAAAGCACTGTCAACATTTAC	1080
Db	1021	TACACAGTGTCTTATTAGTAGGCTGTGAATGATATAAGAAAGCACTGTCAACATTTAC	1080

Thu

QY	1081	CACGTGCATACAAATGCTGAGACAAATATTACCTGGCAGAAAACTACTGTTTGTATCC	1140
Db	1081	CACGTGCATACAAATGCTGAGACAAATATTACCTGGCAGAAAACTACTGTTTGTATCC	1140
QY	1141	ATTCCAAAGCTTATTCATTATCATCAACAAATTCAGCAGGATGATCACACGGCTCCGC	1200
Db	1141	ATTCCAAAGCTTATTCATTATCATCAACAAATTCAGCAGGATGATCACACGGCTCCGC	1200
QY	1201	CACCTGTGTCAACAAAGGCCAACAAAGTCCCGACTCTGTGTCCCTGGGAAATGGAATC	1260
Db	1201	CACCTGTGTCAACAAAGGCCAACAAAGTCCCGACTCTGTGTCCCTGGGAAATGGAATC	1260
QY	1261	TGGGAACCTGAAAGAGAGAGATTACCTTGTGAAGAGAGCTGGGAAGTGGCCAGTTTGA	1320
Db	1261	TGGGAACCTGAAAGAGAGAGATTACCTTGTGAAGAGAGCTGGGAAGTGGCCAGTTTGA	1320
QY	1321	GTGTCTCAGCTGGGCAAGTGGAGGGGAGTATGATTTGCTTTAAGATGATCAAGGAG	1380
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QY	1381	GGCTCCATGTGAGAGATGAATCTTTCAGCAGGCCAGACATGATGATAAACTCAGCCAT	1440
Db	1381	GGCTCCATGTGAGAGATGAATCTTTCAGCAGGCCAGACATGATGATAAACTCAGCCAT	1440
QY	1441	CCCAAGCTGGTTAAATCTTATGGAGTGTGTTCAAAGGAATACCCCATATACATAGTACT	1500
Db	1441	CCCAAGCTGGTTAAATCTTATGGAGTGTGTTCAAAGGAATACCCCATATACATAGTACT	1500
QY	1501	GAATATATAGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	1560
Db	1501	GAATATATAGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	1560
QY	1561	CTTCCAGCTCTTTAGAAATGTCTAGATGTCTGTAAGGAGTGGCTCTTCTGAGAGT	1620
Db	1561	CTTCCAGCTCTTTAGAAATGTCTAGATGTCTGTAAGGAGTGGCTCTTCTGAGAGT	1620
QY	1621	CACCAATTCATACACCGGAGCTTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	1680
Db	1621	CACCAATTCATACACCGGAGCTTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT	1680
QY	1681	GTGAAGATATCTGACTTTTGAATGACAGAGTATGTTCTTGTGATGACAGAGTATCTCT	1740
Db	1681	GTGAAGATATCTGACTTTTGAATGACAGAGTATGTTCTTGTGATGACAGAGTATCTCT	1740
QY	1741	GTGGAACAAAGTTTCCAGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGT	1800
Db	1741	GTGGAACAAAGTTTCCAGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGTCAAGTGGT	1800
QY	1801	AGCAGCAAGTCAAGCTATGGGCAATTTGGGATCCTGATGTGGGAGTGTTCAGCCTGGGG	1860
Db	1801	AGCAGCAAGTCAAGCTATGGGCAATTTGGGATCCTGATGTGGGAGTGTTCAGCCTGGGG	1860
QY	1861	AAGCAGCCCTATGACTTGTATGACAACTCCACAGTGGTCTGTAAGGCTCTCCAGGGCCAC	1920
Db	1861	AAGCAGCCCTATGACTTGTATGACAACTCCACAGTGGTCTGTAAGGCTCTCCAGGGCCAC	1920
QY	1921	AGGCTTTACCGGGCCACCTGGCATTTCCAGACCATCTACAGATCATGTACAGCTGCTGG	1980
Db	1921	AGGCTTTACCGGGCCACCTGGCATTTCCAGACCATCTACAGATCATGTACAGCTGCTGG	1980
QY	1981	CACGAGCTTCCAGAAAGCGTCCCAATTTTCCAGCACTCTGCTTCCATTTGAACCACTT	2040
Db	1981	CACGAGCTTCCAGAAAGCGTCCCAATTTTCCAGCACTCTGCTTCCATTTGAACCACTT	2040
QY	2041	CGGAAAAAGACAGCAATTTGAAGAAATTTAGAGTGTCTGATGAAGAAATTAATATAGATG	2100
Db	2041	CGGAAAAAGACAGCAATTTGAAGAAATTTAGAGTGTCTGATGAAGAAATTAATATAGATG	2100
QY	2101	CTGCCAGCATTTTTCATTTCAATTTAAAGAAAGTAGGAAGCATTAAGTAAATTTAGCTAGT	2160
Db	2101	CTGCCAGCATTTTTCATTTCAATTTAAAGAAAGTAGGAAGCATTAAGTAAATTTAGCTAGT	2160

Thu. Aug 21 11:53:28 2003

us-10-021-660-41.rni

2161	QY	TTTTAAATAGTGTCTCTGATATGTCATATTTAGAAATGAACAGCGCAGGAAACAAAG	2220
2161	Db	TTTTAAATAGTGTCTCTGATATGTCATATTTAGAAATGAACAGCGCAGGAAACAAAG	2220
2221	QY	ATTCCCTCGAAATTTAGATCAAAATTAGTAAATTTGTTATGCTGCTCTCGATATAACAC	2280
2221	Db	ATTCCCTCGAAATTTAGATCAAAATTAGTAAATTTGTTATGCTGCTCTCGATATAACAC	2280
2281	QY	TTTCCAGCCTATAGCAGAGCACATTTTCAGACTGCAATATAGAGACTGTGTTTCATGTGT	2340
2281	Db	TTTCCAGCCTATAGCAGAGCACATTTTCAGACTGCAATATAGAGACTGTGTTTCATGTGT	2340
2341	QY	AAAGACTGCACAGACTGAAATTAAGTAAATTCGATATTCATCTTTCTTTTATATTGTC	2400
2341	Db	AAAGACTGCACAGACTGAAATTAAGTAAATTCGATATTCATCTTTCTTTTATATTGTC	2400
2401	QY	ATTGTCAACAATAATAATATCTACCAAGTACAGAAATCGGAAAAAACC	2456
2401	Db	ATTGTCAACAATAATAATATCTACCAAGTACAGAAATCGGAAAAAACC	2456

SOLT 2

US-08-426-509A-3
: Sequence 3, application US/08426509A
: Patent No. 6326469
: GENERAL INFORMATION:
: APPLICANT: Ullrich,, Axel
: APPLICANT: Gishizsky,, Mikhail
: APPLICANT: Sures,, Irman G.
: TITLE OF INVENTION: NOVEL MEGAKARYOCYTIC PROTEIN
: TITLE OF INVENTION: TYROSINE KINASES
: NUMBER OF SEQUENCES: 21
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Pennie & Edmonds
: STREET: 1155 Avenue of the Americas
: CITY: New York,
: STATE: NY
: COUNTRY: USA
: ZIP: 10036-2711
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Diskette
: COMPUTER: IBM Compatible
: OPERATING SYSTEM: DOS
: SOFTWARE: FastSEO Version 2.0
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/426,509A
: FILING DATE: 21-APR-1995
: CLASSIFICATION: 435
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: 08/232,545
: FILING DATE:
: ATTORNEY/AGENT INFORMATION:
: NAME: Coruzzi, Laura A
: REGISTRATION NUMBER: 30,742
: REFERENCE/DOCKET NUMBER: 7683-0074-999
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: 212-790-9090
: TELEFAX: 212-869-9741
: TELEX: 66141 PENNIE
: INFORMATION FOR SEQ ID NO: 3:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 2500 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: unknown
: TOPOLOGY: unknown
US-08-426-509A-3

Query Match	97.6%	Score 2397.6	DB 4	Length 2500
Best Local Similarity	99.4%	Pred. No. 0		
Matches 2417	Conservative	0	Mismatches 14	Indels 1
				Gaps 1
QY	22	ACGGGATGATAATGGATACAAATCTATTCTAGAGAAGCTTCTTCTCAAAAGATCACAG	81	

22 ACGGATGATAATATGGATACAAAATCTATTCTAGAAGAACTTCTCTCTCAAAAGATCACAG 81

70	AGGATGATATATGGATACAAAATCTATTCTAGAACTTCTTCTCAAAAGATCACAG	129
82	CAAAAGAAGAAAATGTCTACCAAAATAATTACAAAGAACGGCTTTTGTGTTGACCAAAACA	141
130	CAAAAGAAGAAAATGTCTACCAAAATAATTACAAAGAACGGCTTTTGTGTTGACCAAAACA	189
142	AACCTTTCTACTATGAATATGACAAAATGAAAAGGGCGACGACAAAAGGATCCATTGAA	201
190	AACCTTTCTACTATGAATATGACAAAATGAAAAGGGCGACGACAAAAGGATCCATTGAA	249
202	ATTAAAGAAAATCAGATGTGTGGAGAAAAGTAAATCTCGAGGACGAGAGCCCTGTAGAGAGA	261
250	ATTAAAGAAAATCAGATGTGTGGAGAAAAGTAAATCTCGAGGACGAGAGCCCTGTAGAGAGA	309
262	CAGTACCCATTTTCAGATTTGCTATTAAGATGGGCTTCTCTATGTCTATGCATCAAAATGAA	321
310	CAGTACCCATTTTCAGATTTGCTATTAAGATGGGCTTCTCTATGTCTATGCATCAAAATGAA	369
322	GAGAGCGAAGTCAGTGGTTGAAAGCATTTACAAAAGAGATAAGGGGTAAACCCCAACCTG	381
370	GAGAGCGAAGTCAGTGGTTGAAAGCATTTACAAAAGAGATAAGGGGTAAACCCCAACCTG	429
382	CTGGTCAAGTACCATAGTGGGTTCTTCGTGGACGGGAAGTTCTCTGTGTGGCAGCAGAGC	441
430	CTGGTCAAGTACCATAGTGGGTTCTTCGTGGACGGGAAGTTCTCTGTGTGGCAGCAGAGC	489
442	TGTAAGACGCCGCCAGATGTACCTCTCTGGGAAGCATATGCTTAATCTGCATATGCAGTC	501
490	TGTAAGACGCCGCCAGATGTACCTCTCTGGGAAGCATATGCTTAATCTGCATATGCAGTC	549
502	ANTGAAGAGAAAACACAGAGTTCCACCTTTCCAGACAGAGTGCCTGAAGATACCTCGGGCA	561
550	AATGAAGAGAAAACACAGAGTTCCACCTTTCCAGACAGAGTGCCTGAAGATACCTCGGGCA	609
562	GTTCTCTGTTCTCAAAATGGATGACCATCTTCAAGTACCACCTCTAGCCCAATATGACAAC	621
610	GTTCTCTGTTCTCAAAATGGATGACCATCTTCAAGTACCACCTCTAGCCCAATATGACAAC	669
622	GAATCAAGAAAAAATCTATGGCTCCGAGCCACCATCTTCAAGTACCAGTCTACGCGCAATAT	681
670	GAATCAAGAAAAAATCTATGGCTCCGAGCCACCATCTTCAAGTACCAGTCTACGCGCAATAT	729
682	GACAGCAACTCAAGAAAAATCTATGGCTCCGAGCCCAAACTTCAACATGCAGTATATTCCA	741
730	GACAGCAACTCAAGAAAAATCTATGGCTCCGAGCCCAAACTTCAACATGCAGTATATTCCA	789
742	AGGGAAGACTTCCCTGACTGGTGCAAGTAAAGAAAACCTGAAAAAGTACGACGACGAGTAA	801
790	AGGGAAGACTTCCCTGACTGGTGCAAGTAAAGAAAACCTGAAAAAGTACGACGACGAGTAA	849
802	GATGTTGCAAGCAGTAACCAAAAAGAAAGAAATGTGAATCACACCCTCAAGATTTTCA	861
850	GATGTTGCAAGCAGTAACCAAAAAGAAAGAAATGTGAATCACACCCTCAAGATTTTCA	909
862	TGGGAATTTCCCTGAGTCAAGTTCACTGAAAGAGAGGAAAAACCTGGATGATTATGACTGG	921
910	TGGGAATTTCCCTGAGTCAAGTTCACTGAAAGAGAGGAAAAACCTGGATGATTATGACTGG	969
922	TTTGCTGCTACATCTCCAGATCACAACTCTGAACAGTTTACTTCAGACAAAAGGAAAAAGAA	981
970	TTTGCTGCTACATCTCCAGATCACAACTCTGAACAGTTTACTTCAGACAAAAGGAAAAAGAA	1029
982	GGAGCATTTATGGTTAGAAAATTCGAGCCAACTGGGAATGTACACAGTGTCTTATTAGT	1041
1030	GGAGCATTTATGGTTAGAAAATTCGAGCCAACTGGGAATGTACACAGTGTCTTATTAGT	1089
1042	AAGGCTGTGAATGATAAAAAGGAACCTGTCAAAATTCACACGTGCAATACAAATGCTGAG	1101
1090	AAGGCTGTGAATGATAAAAAGGAACCTGTCAAAATTCACACGTGCAATACAAATGCTGAG	1149
1102	ACAAATTTATACCTGGCAGAAAACCTACTGTTTGTATTCCTCAATCCAAAGCTTATTCTATT	1161
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[illegible][illegible]

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1561 CCTCCAGCTCTTAGAATGTGCTACGATGTGTGTAAGGATGGCTTCTTGGAGAGT 1620
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1621 CACCAATTCATACACGGGACTTGGCTGCTGTAACCTGTTGGTGGACAGATCTCTGT 1680
1681 GTGAAAGTATCTGACTTGGCAATGACAAGGTATGTTCTTGCATGACCAAGTATGTCAGTTCA 1740
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1741 GTCGGAACAAGTTTCCAGTCAAGTGGTCAAGTCCAGAGAGTGTTCATTAATCAATAC 1800
1741 GTCGGAACAAGTTTCCAGTCAAGTGGTCAAGTCCAGAGAGTGTTCATTAATCAATAC 1800
1801 AGCAGCAAGTTCAGACGATGCGCATTTGGGATCCTGATGCGGAGGTGTTACGCTGGGG 1860
1801 AGCAGCAAGTTCAGACGATGCGCATTTGGGATCCTGATGCGGAGGTGTTACGCTGGGG 1860
1861 AAGCAGCCCTATGACTTGTATGACAACCTCCAGAGTGTCTGAAGGTCTCCAGGGCCAC 1920
1861 AAGCAGCCCTATGACTTGTATGACAACCTCCAGAGTGTCTGAAGGTCTCCAGGGCCAC 1920
1921 AGGCTTACGGGCCCCACCTGGGATCGGACACCACTTACAGATCATGTCAGTGTGG 1980
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1981 CAGCAGCTTCCAGAAAAGCGTCCACATTTTCAAGCACTCTGCTTCCATTGAACCACTT 2040
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2161 TTTTAAATAGTGTCTCTGATTTGCTATTTTGAAGAAGTGGAGCAATGAATTTAGCTAGT 2220
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2221 ATTCCCTTGAATTTAGATCAATTTAGTAAATTTTGAAGAAGTGGAGCAATGAATTTAGCTAGT 2280
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2281 TTTCCAGCTTATAGCAGAACACATTTTCAAGTGTCAATATAGAGCTGTGTTTATGCTGT 2340
2281 TTTCCAGCTTATAGCAGAACACATTTTCAAGTGTCAATATAGAGCTGTGTTTATGCTGT 2340
2341 AAAGACTGAGCAGAACTGAAAAATTTACTTTTGGATATTTCTTTTCTTTTATTTGTC 2400
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2401 ATTGTCAACAATTAATATATCTACCAAGTACAGAAATGTGGAAAAAACC 2456
2401 ATTGTCAACAATTAATATATCTACCAAGTACAGAAATGTGGAAAAAACC 2456

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RESULT 3
 US-10-220-801-11
 ; Sequence 11, Application US/10220801
 ; Publication No. US2003012535A1
 ; GENERAL INFORMATION:
 ; APPLICANT: FOXWELL, Brian Maurice John
 ; TITLE OF INVENTION: TREATMENT OF DISEASES ASSOCIATED WITH CYTOKINE PRODUCTION WITH
 ; OF INVENTION: INHIBITORS OF THE TEC FAMILY OF PROTEIN TYROSINE KINASES
 ; FILE REFERENCE: 117-412 / N5427B JP
 ; CURRENT APPLICATION NUMBER: US/10/220, 801
 ; PRIOR FILING DATE: 2002-09-05
 ; PRIOR APPLICATION NUMBER: PCT/GB01/00949
 ; PRIOR FILING DATE: 2001-03-06
 ; APPLICATION NUMBER: GB 0005345.4

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; PRIOR FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: MS Word
; SEQ ID NO 11
; LENGTH: 2449
; TYPE: DNA
; ORGANISM: Homo sapiens
; US-10-220-801-11

Query Match      98.7%; Score 2424.4; DB 14; Length 2449;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 2439; Conservative 0; Mismatches 6; Indels 1; Gaps 1;

Qy 1 GCAAGCACGCAACAACTGAGACGGATGATAATATGATACAAAATCTATTCTAGAGAA 60
Db 1 GCAAGCACGCAACAACTGAGACGGATGATAATATGATACAAAATCTATTCTAGAGAA 60
Qy 61 CTTCTTCTCAAAAAGATCACAGCAAAAAGAAAATGTCAAAAATTAATACAAAAGACGG 120
Db 61 CTTCTTCTCAAAAAGATCACAGCAAAAAGAAAATGTCAAAAATTAATACAAAAGACGG 120
Qy 121 CTTTCTGTTTGGACCAAAAACAACTTCTCTACTATGATATGACAAAATGAAAAGGGC 180
Db 121 CTTTCTGTTTGGACCAAAAACAACTTCTCTACTATGATATGACAAAATGAAAAGGGC 180
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Db 301 TATGCTATGCTATCAATGAAGAGAGCCGAGTCAAGTGTGTAAGAGCATTTACAAAAGAG 360
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Db 361 ATAAGGGGTAACCCCACTGCTGCTGCTCAAGTACATAGTGGTCTTCTGTTGGAGGAG 420
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Db 481 GCTAATCTGCTATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 540
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Db 541 GTCTGAAGATACCTCGGGCAGTTCCTGTTCTCAAAATGGATGACCATCTTCAAGTACC 600
Qy 601 ACTCTAGCCCAATATGACACAGATTAAGAAAATATGCTCCAGCCAGCATCTTCA 660
Db 601 ACTCTAGCCCAATATGACACAGATTAAGAAAATATGCTCCAGCCAGCATCTTCA 660
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Db 661 AGTACCACTGTAGCGCAATATGACACAGATTAAGAAAATATGCTCCAGCCAGCAT 720
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Db 721 TTCAACATGCTATATTTCCAGGGAGACTTCCCTGACTGTTGGGCAAGTAAAGAACTG 780
Qy 781 AAAAGTAGCAGCAGCAGTGAAGATGTTGCAAGCAATTAACCAAAAAGAAAATGTAAT 840
Db 781 AAAAGTAGCAGCAGCAGTGAAGATGTTGCAAGCAATTAACCAAAAAGAAAATGTAAT 840
Qy 841 CACACACCTCAAAAGATTTTCAATGGGAAATTTCCCTGAGTCAAGTTCATCTGAAGAGAG 900
Db 841 CACACACCTCAAAAGATTTTCAATGGGAAATTTCCCTGAGTCAAGTTCATCTGAAGAGAG 900

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||||| 2041 CGGGAAAGACAGCATTGAAGCAAGAAATAGGAGTGTGATAAGAAATAGATAGATG 2100
QY 2101 CTGGCCAGCATTTTCAATTCATTTTAAAGAAAGTAGGAGCAATAGTAAATTTAGCTAGT 2160
Db 2101 CTGGCCAGCATTTTCAATTCATTTTAAAGAAAGTAGGAGCAATAGTAAATTTAGCTAGT 2160
QY 2161 TTTTAATAGTGTCTCTGCTATTTCTATTTAGAAATGAAGCAAGCAGCAACAAAG 2220
Db 2161 TTTTAATAGTGTCTCTGCTATTTCTATTTAGAAATGAAGCAAGCAGCAACAAAG 2220
QY 2221 ATTCCCTTGAATTTAGATCAAAATAGTAAATTTTGTGCTGCTGCTGATATACAC 2280
Db 2221 ATTCCCTTGAATTTAGATCAAAATAGTAAATTTTGTGCTGCTGCTGATATACAC 2280
QY 2281 TTTCCAGCCATAGCAGCAAGCAGCATTTTCAAGTGCATATAGAGACTGTTCATGCT 2340
Db 2281 TTTCCAGCCATAGCAGCAAGCAGCATTTTCAAGTGCATATAGAGACTGTTCATGCT 2340
QY 2341 AAAGACTGAGCAGCAAGTGAAGAAATTTACTTTTGGATATTCATTTCTTTTATATGTC 2400
Db 2341 AAAGACTGAGCAGCAAGTGAAGAAATTTACTTTTGGATATTCATTTCTTTTATATGTC 2400
QY 2401 ATTGTCACAAATTAATATATCTACCAAGTACAGAAATGTGGAAAGAAACCG 2456
Db 2401 ATTGTCACAAATTAATATATCTACCAAGTACAGAAATGTGGAAAGAAACCG 2456

RESULT 2
HBMXGENE HBMXGENE 2456 bp mRNA linear PRI 22-AUG-1995
LOCUS H.sapiens Bmx mRNA for cytoplasmic Tyrosine kinase.
DEFINITION X83107
ACCESSION X83107.1 GI:951234
VERSION cytoplasmic; Tyrosine kinase.
KEYWORDS Homo sapiens (human)
SOURCE Homo sapiens
ORGANISM Homo sapiens
TAMAGNONE L., LAHTINEN I., MUSTONEN T., VIRTANEVA K., FRANCIS F.,
MUSCATELLI F., ALITALO R., SMITH C.I., LARSSON C. and ALITALO K.
BTK/ITK/TEC/TK family located in chromosome Xp22.2
Oncogene 9 (12), 3683-3688 (1994)
95060827
7970727
2 (bases 1 to 2456)
TAMAGNONE L.
Direct Submission
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Related sequence: U08341.
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ORIGIN
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